

## REMARKS

Claims 1-77 are pending in this application. Claims 1, 27 and 28 have been amended. No new matter has been added. Reexamination and reconsideration are respectfully requested.

### Election/Restriction

The Examiner has withdrawn claim 69 from consideration as being directed to a non-elected invention. Reconsideration of the withdrawal of claim 69 and re-entry of that claim into consideration is requested. In particular, the Examiner stated that claim 69 recites an armature comprising radial struts that was not found in the originally elected independent claims. However, claim 69 is, in effect, an independent version of original dependent claim 27 (which was included in the elected species). Originally, the Examiner examined and objected to claim 27 as being dependent on a rejected base claim, but also indicated that the claim would be allowable, if rewritten in independent form (See Office Action dated October 24, 2003). Accordingly, claim 69 was added to form a rewritten, independent version of claim 27, in accordance with the proposal set forth in the Office in the objection to claim 27. Applicant requests that claim 69 be re-entered in the application and allowed, as provided in the October 24, 2003 Office Action.

### Rejection Under 35 U.S.C. § 102

The Examiner has rejected claims 1, 6 and 13 under 35 U.S.C. § 102(b) as being anticipated by Buchholtz et al., U.S. Patent No. 4,808,089. In addition, the Examiner has rejected claims 1-6, 13-16, 21, 22, 33, 34, 76 and 77 under 35 U.S.C. § 102(b) as being anticipated by Slettenmark, U.S. Patent No. 5,318,521. These rejections are respectfully traversed. However, in an effort to further clarify and distinguish embodiments of Applicant's invention over the cited references and pass the claims to allowance at an earliest possible date, Applicant has amended independent claims 1, 33 and 34, as discussed below.

As amended, each of independent claims 1, 33 and 34 recite a drive mechanism for delivery of infusion medium comprising, *inter alia*, an armature disposed adjacent the coil, on

one side of the piston channel, the armature having a pair of pole surfaces and also having radial struts for conducting electromagnetic flux between the pole surfaces in a radial direction. As described in the present specification, the radial strut arrangement can provide a good conduction path for electromagnetic flux between two annular pole surfaces and also allows fluid to pass through openings between struts (and, thus, reduces fluidic drag on the moving armature). These features are not found in the Buchholtz or Slettenmark references.

Buchholtz is directed toward a reciprocating pump for a medication administering device. Buchholtz discloses an electromagnetic drive system that includes a piston 17 having an armature part 106 connected thereto. The armature part 106 is surrounded by and completely encapsulated by a pot-shaped capsule 108. (Buchholtz, col. 4, l. 56 to col. 5, l. 2.) Buchholtz neither describes nor suggests an armature having a pair of pole surfaces and also having radial struts for conducting electromagnetic flux between the pole surfaces in a radial direction. Indeed, the arrangement of the coil (and magnetizable coil housing) below and partially lateral to armature in Buchholtz precludes the use of two annular pole surfaces connected by radial struts. In other words, radial struts could not connect two pole surfaces on Buchholtz' armature. Also, Buchholtz' complete encapsulation of the armature part 106 within a pot-shaped capsule 108 (as taught by Buchholtz) would seem to teach away from an armature having radial struts as claimed. The pot-shaped capsule 108 completely covers the armature part 106 and, thus, would not allow fluid to pass through the armature part 106, even if the armature part 106 were somehow provided with openings between struts. Thus, there would have been no useful purpose for employing radial struts with openings between struts in Buchholtz' armature part 106.

Similarly, there is no discussion or suggestion in Slettenmark of a drive mechanism as claimed, including an armature having a pair of pole surfaces and also having radial struts for conducting electromagnetic flux between the pole surfaces in a radial direction. Like Buchholtz, the Slettenmark patent describes an arrangement of the coil (and magnetizable coil housing) below and partially lateral to armature 9, which would preclude the use of two annular pole surfaces connected by radial struts. In other words, radial struts could not connect two pole

surfaces on Slettenmark's armature 9. Also, like Buchholtz, Slettenmark's armature 9 is encapsulated (Slettenmark, col. 4, ll. 59-60). Thus, fluid could not pass through the armature 9, even if the armature 9 were somehow provided with openings between struts. Thus, there would have been no useful purpose for employing radial struts with openings between struts in Slettenmark's armature 9.

Accordingly, the drive mechanism of amended claims 1, 33 and 34 are not disclosed or suggested in Buchholtz or Slettenmark. Furthermore, because each of claims 1-6, 13-16, 21, 22, 33, 34, 76 and 77 is dependent, directly or indirectly, from one of claims 1, 33 and 34, each of those dependent claims is believed to be patentably distinguished over the Buchholtz patent and the Slettenmark patent, at least for the reasons discussed above with respect to independent claims 1, 33 and 34. Accordingly, the rejections under 35 U.S.C. 102(b) are respectfully traversed.

#### Rejection Under 35 U.S.C. § 103

The Examiner has rejected claims 7, 9-11, 23 and 71-75 under 35 U.S.C. § 103(a) as being unpatentable over Slettenmark in view of Kenyon, U.S. Patent No. 4,684,368. This rejection is respectfully traversed. As explained above, claim 1 has been amended to further clarify and distinguish embodiments of Applicant's invention over the cited art. Because claims 7, 9-11, 23 and 71-75 depend either directly or indirectly from claim 1, these claims are also clarified and distinguished over the cited art.

As explained above, claim 1, as amended, recites features that are not disclosed or suggested in Slettenmark. In addition, those features are also not disclosed or suggested by Kenyon, individually or in combination with Slettenmark.

Kenyon is directed toward a pump having an armature 64 that is reciprocated between an electromagnetic core and a housing. Kenyon does not disclose or suggest radial struts in the

armature 64. Also, as can be seen in Fig. 1 of Kenyon, there is no piston channel in the Kenyon device. Accordingly, Kenyon does not address the above-noted distinctions between claim 1 and the Slettenmark patent. Therefore, a *prima facie* case of obviousness is not established with the Slettenmark and Kenyon references against claim 1, as amended herein. Because claims 7, 9-11, 23 and 71-75 each depend either directly or indirectly from claim 1, a *prima facie* case of obviousness is not established against these claims as well, at least for reasons as discussed above with respect to parent claim 1.

The Examiner has also rejected claims 17-20 under 35 U.S.C. § 103(a) as being unpatentable over Slettenmark in view of Wijay et al., U.S. Patent No. 5,066,282. This rejection is respectfully traversed.

As explained above, claim 1, as amended, recites features that are not disclosed or suggested in Slettenmark. In addition, those features are also not disclosed or suggested by Wijay, individually or in combination with Slettenmark.

Wijay describes a pump device that operates with a plunger 10 driven by a drive motor 12, through a linkage 14. However, Wijay does not describe specific structure for driving the plunger 10 and, thus, does not describe or suggest specific armature structure. In that regard, Wijay does not describe or suggest a drive mechanism having an armature with radial struts as claimed. In that regard, Wijay does not address the above-noted distinctions between claim 1 and the Slettenmark patent. Therefore, a *prima facie* case of obviousness is not established with the Slettenmark and Wijay references against claim 1, as amended herein. Because claims 17-20 each depend either directly or indirectly from claim 1, a *prima facie* case of obviousness is not established against these claims as well, at least for reasons as discussed above with respect to parent claim 1.

Accordingly, the rejections under 35 U.S.C. 103(a) are respectfully traversed.

Allowable Subject Matter



Atty. Dkt. No. 047711-0285

Applicant gratefully acknowledges the Examiner's recognition of allowable subject matter in claims 27-32. Claim 27 is amended herein to be in independent form and to include all of the limitations of its parent claim 1. Claims 28-32 are dependent, directly or indirectly on claim 27. Accordingly, it is respectfully submitted that claims 27-32 are in condition for allowance.

Applicant also gratefully acknowledges the Examiner's indication that claim 70 is allowable over the prior art of record. That claim remains in the application in its allowed form.

In view of the foregoing, it is respectfully submitted that the application is now in condition for allowance.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 05-0872. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 05-0872. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicant hereby petitions for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 05-0872.

Respectfully submitted,

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